



U.S. ENVIRONMENTAL PROTECTION AGENCY

REGION 9

CLEAN WATER ACT COMPLIANCE OFFICE

NPDES Permittee: Steve Moody (unpermitted facility)

Facility: Ielmorini Moody Dairy
1001 Middle Road
Valley Ford, CA 94972
(Conditional Waiver of Waste Discharge Requirements Order R1-2012-0003)

Receiving Water: Americano Creek (and Middle Estuary Creek)

Date of Inspection: April 17, 2014; 10:30 a.m.

Inspection Participants:

U.S. EPA: Glenn Sakamoto, CWA Compliance Office, (415) 972 - 3556
Becky Mitschele, NPDES Office, (415) 972 - 3492

California Regional Board: Cherie Blatt, North Coast Regional Water Quality Control Board
(707) 576 – 2755

Western United Dairymen: Melissa Lema, Field Representative,

Marin Ag. Land Trust: Jim Jensen

Gold Ridge Resource
Conservation District: William Hart

Clover Stornetta Farms: Dayna Ghiradelli

Report Prepared By: Becky Mitschele, US EPA Region 9

Report Date: May 12, 2014



1.0 SUMMARY

The California North Coast Region contains approximately 150 dairies, housing about 50,000 cows. While the size of the dairies in Marin and Sonoma are small compared to those in Chino and the Central Valley, they are often located on hills that slope toward creeks and streams. These water bodies are vulnerable to manure runoff, especially during the rainy season.

The United States Environmental Protection Agency (EPA) and the California North Coast Regional Water Quality Control Board (RB 1) performed an inspection of Ielmorini Moody Dairy to determine compliance with the conditional waiver of the RB1 Waste Discharge Requirements (order number R1-2012-0003) and to ensure the facility was not discharging. The conditional waiver acts like a permit by establishing best management practice, monitoring and reporting requirements, and other requirements (herein referred to as “conditional waiver permit” or “conditional waiver of WDR permit”). RB 1 is conducting inspections of all facilities seeking coverage under the conditional waiver permit. At the time of this inspection, RB 1 had conducted over 100 inspections at facilities enrolled under the conditional waiver permit.

EPA and RB 1 have not inspected this facility previously, and therefore, past regulatory history does not exist. The weather at the time of the inspection, on April 17, 2014, was clear and dry. EPA and RB 1 observed no discharges or evidence of past discharges to waters of the U.S.

2.0 NORTH COAST PERMIT PROGRAM (RB 1)

The State Water Resources Control Board’s 2004 Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program requires that nonpoint source discharges of waste be regulated by waste discharge requirements (WDRs), waiver of WDRs, or prohibitions to ensure compliance with Regional Water Board Water Quality Control Plans. As such, RB1 adopted dairy and concentrated animal feeding operation (CAFO) permits on January 19, 2012. The RB1 permitting program consists of a federal national discharge elimination system (NPDES) permit, a state WDR permit, and a conditional waiver of WDR permit. All operators of dairy facilities were required to enroll under one of the three permits by April 30, 2012.

The conditional waiver of WDR permit is a general permit applicable to existing dairy operations that have not expanded (as of 1/19/12). RB 1 requires new or expanding dairies to apply for an individual WDR or individual waiver of WDR permit (as opposed to seeking coverage under the general permit).

The conditional waiver of WDR permit prohibits discharges to surface water and groundwater, requires specific production and land application best management practices, and establishes record keeping and monitoring requirements. Specifically, the waiver permit prohibits:

- Direct discharges to groundwater;
- Discharges of manure and process wastewater to surface water or groundwater;
- Discharges from the production area of stormwater that has come into contact with manure or process wastewater;
- Discharges to surface waters via tile drain lines or irrigation return flows (i.e. tailwater), including irrigation water that comes into contact with process wastewater or manure;



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- Discharges from the land application that do not comply with the requirements in the water quality plan (or nutrient management plan for Large CAFOs) and the monitoring and reporting plan;
- Disposal of mortalities in liquid manure or process wastewater systems; and
- Animal access (i.e. direct contact) to surface water within production area.

The waiver permit requires facilities that meet EPA's Large CAFO size threshold (i.e. 700 dairy cows) to develop and implement a nutrient management plan. Facilities under the large size threshold must have a water quality plan. These plans are submitted along with the notice of intent or permit application. Additional waiver permit requirements are explained in the applicable section under "4.0 Major Findings" of this report.

2.0 INSPECTION PARTICIPANTS

Steve and Steven Moody, Ielmorini Moody Dairy
Glenn Sakamoto, US EPA
Becky Mitschele, US EPA
Cherie Blatt, Regional Water Quality Control Board 1
Jim Jensen, Marin Agriculture Land Trust (MALT)
William Hart, Gold Ridge Resource Conservation District
Dayna Ghiradelli, Clover Stornetta Farms
Melissa Lema, Western United Dairymen

3.0 FACILITY DESCRIPTION

Ielmorini Moody Dairy is a half organic and half traditional pasture-based dairy with a capacity of 750 cows. The facility, at the time of inspection, had a total of 725 cows (i.e. 365 milking + dry, and 360 other cows). EPA's Large CAFO size threshold for dairy cows is 700 or more. The facility is located at 38.3165 and -122.912786. Middle Estuary Creek and Americano Creek (in the Estero Americano watershed) intersects the permittee's crop/pasture fields.

4.0 MAJOR FINDINGS

4.1 *Production Area*

The production area includes the animal confinement area, milking parlors, manure and process wastewater storage area, raw materials storage area, and any other waste containment areas. 40 CFR § 122.23(b)(8). Since the permittee does not have an NPDES permit, no discharge is authorized from the production area, including overflows from a 25-year, 24-hour storm event.

Pursuant to the conditional waiver permit, RB 1 specifies the following storage and containment area requirements:

- Storage facilities within a floodplain must be protected from inundation or damage from a 100-year flood event;



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- Manure ponds constructed after 1/9/12 must comply with Natural Resources Conservation Service Waste Storage Facility Code 313, including a maximum specific discharge (unit seepage rate) of 1×10^{-6} cm/sec.; and
- Existing manure pond liners must meet or exceed a minimum of 10% clay and not more than 10% gravel, or the liner must be constructed of artificial materials of equivalent or greater impermeability.

Housing areas had concrete flooring in the barns and dirt surfaces in the outdoor areas (i.e. dry lots). The facility has two ponds, both of which met the state's liner requirements and the required 2 feet of freeboard. The pond was raised 3 feet in 2013 per the NRCS design standards. The inspectors observed weed growth on the berms of the ponds. The permittee, in conjunction with the Marin Agriculture Land Trust and local Resource Conservation District, is developing a rain catchment pond to increase storage capacity at the facility. The rain catchment pond will contain only direct precipitation and stormwater. All buildings had gutters for stormwater diversion and could be directed to drain into the waste containment structure. The inspectors did not observe any evidence of production area runoff. See photos 1 to 20.

4.2 *Records/Reports*

The conditional waiver permit contains monitoring, sampling, and record-keeping requirements (i.e. Monitoring and Reporting Program).

The waiver permit requires facilities that meet EPA's Large CAFO size threshold (i.e. 700 dairy cows) to have and implement a nutrient management plan. Facilities under the size threshold must have a water quality plan. However, the state encourages dairies with less than 700 mature to still prepare and implement an NMP.

Under the waiver permit, all facilities need to submit an annual report and include the results of the required sampling for stormwater runoff, surface waters monitoring, and groundwater sampling from on-site agricultural wells. The facility may conduct this monitoring or participate in a group watershed monitoring program. Sampling takes place during or directly following major storm events of one inch or more per 24 hours, during the rainy season, beginning in the winter of 2012. The permittees must monitor surface waters for electrical conductivity, total ammonia nitrogen, pH, and temperature. Agricultural wells are sampled for nitrate and fecal coliform bacteria.

For facilities that transfer manure or process wastewater, a manifest is required.

Ielmorini Moody Dairy had all required monitoring and record keeping. The facility also has a NMP since the facility has a capacity that exceeds EPA's Large CAFO size threshold. The facility land applies all manure and process wastewater and does not transfer any manure off-site.

4.4 *Best Management Practices and Receiving Water(s)*

Americano Creek intersects the facility's fields south of the production area, and Middle Estuary Creek intersects the facility's north fields. Numerous North Coast streams are listed as impaired for sediment and temperature, and some are impaired for nutrients and indicator bacteria pursuant to section 303(d) of the Clean Water Act. To date, EPA has established TMDLs for 26 impaired



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stream segments in the North Coast Region. Americano Creek is listed as impaired pursuant to Section 303(d) of the Clean Water Act. The contaminants of concern causing impairment are nutrients. The state estimates a completed total maximum daily load by 2019 to ensure attainment of water quality objectives.

Pasture areas are not subject to regulation except with respect to the CAFO's land application of manure and process wastewater. The facility maintains vegetation in all fields, including those adjacent to Americano Creek. The facility has over a 100-foot vegetated buffer between grazing areas and the creek. The Creek is entirely fenced, preventing any animal access. Cattle cross the creek via culverts in the spring. The facility land applies manure and process wastewater on all silage and crop fields, which includes 1,600 acres. See photos 1 to 20.

5.0 RECOMMENDATIONS

The facility should add best management practices to keep manure and sediment out of the Creek prior to the rainy season.

The facility should minimize the growth of vegetation on top of the waste containment structures to ensure structural integrity. Embankments of any waste containment structure also should be dry and have sufficient access for equipment, such as pumps and agitators.

EPA also supports the state inspector's recommendation of:

"...current aerial maps reveal some bare soil areas on and near cow crossings of tributaries to Estero Americano at several locations:

- a. At the culvert crossing of the Estero Americano tributary located just southwest of Field P10
- b. Cow crossings of the Estero Americano tributary in Field P1,
- c. Near the bridge on the main tributary channel between fields P3 and P4,
- d. Cow crossings in Field P5, and
- e. A cow crossing in Field P6.

Please work on gradual improvement projects such as winter revegetation of these areas prior to the rainy season, the installation of cow exclusion fencing along these crossings, and the installation of water troughs away from the creeks if necessary, in order to comply with Waiver prohibitions and the Water Quality Control Plan for the North Coast Basin. The prohibitions are listed on Waiver page 11 and prohibit the discharge of waste, such as nutrients and sediment, to surface water."



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APPENDIX A. Staff Field Notes

INSPECTION FIELD NOTES (North Coast area CAFOs) EPA Region 9 Compliance Evaluation Inspection (CEI) Official Use Only (Inspector's field notes used to document observations)

FACILITY INFORMATION

Inspection Date: 4/17/2014

EPA Inspector: Glenn Sakamoto

Accompanying State Inspector: Cherie Blatt

Others: Becky Mitschele (EPA); Melissa Lema (Western United Dairymen); Dayna Ghiradelli (Clover); Jim Jensen (MALT); William Hart, Gold Ridge Resource Conservation District

Facility Name/Address:

Lelmorini Moody Dairy

1001 Middle Road

Valley Ford, CA 94972

Owner/Operator Name/Address: Steve and Steven Moody

Phone #: (559) 478 - 3066

Address: Same as facility

NPDES ID No.: Permitted under conditional waiver of WDR (state waiver permit)

GPS Coordinates (Lat./Long.): 38.3165 and -122.912786

Refer to Attached EPA APPENDIX J (NPDES COMPLIANCE INSPECTION REPORT FORM 3560-3 for violation codes pertaining to this inspection)

ANNUAL REPORT REVIEW

ANNUAL REPORT

- Monitoring Year: 2013 (November 1 through October 31 for proceeding 12 month period)
- Submittal Date: Due November 30 each year

REPORTED ANIMAL POPULATION

- Milk Cows: 750 cows vs Actual # observed during inspection: 360 (milking + dry); 300 other
- Calves: NA vs Actual # observed during inspection:
- Dry Cows: NA vs Actual # observed during inspection:
- Heifers: NA vs Actual # observed during inspection:
- Other (explain): NA

Breed of milking cows: Holsteins

MANURE INFORMATION

- Amount of manure spread on cropland at the facility: spreading on 1,600 acres
- Amount of manure hauled off site: none



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- **If hauled off site (e.g. composting operation), name and location of operation: NA**

INSPECTION OBSERVATIONS AND SUMMARY

- Half of operations is organic, pasture-based and the other half is traditional, pasture-based.
- Cattle crossing via a convert in the Spring.
- Property line goes pass Americano Creek and Middle Estuary Creek.
- Facility renders mortalities. No burial on property.
- Winter forage blend of oats and rye.
- Facility operating since 1955.
- Facility would like to construct new pond for manure storage behind the dry lots.



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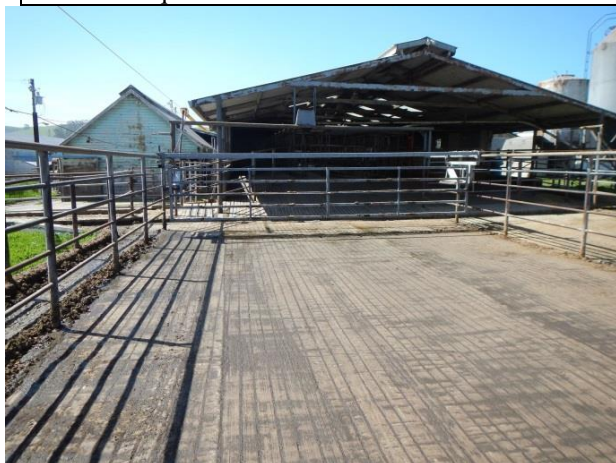
APPENDIX B. Photographs taken by Cherie Blatt, Regional Water Board



1. Cows at Ielmorini Moody Dairy



2. Liquids Pond



3. Concrete-lined corral. Note gutters on Milk barn



4. Concrete-lined corral. Note gutters on barn



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5. Concrete-lined lane. Note manure ponds on right



6. Manure Separator



7. Solids Pond on left, Liquids Pond on right



8. Manure Pit near the Northeast Corner of Milk Barn



9. Concrete-lined lanes and barn



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10. Corral and Freestall Barn



11. Concrete floor and curb on Freestall Barn



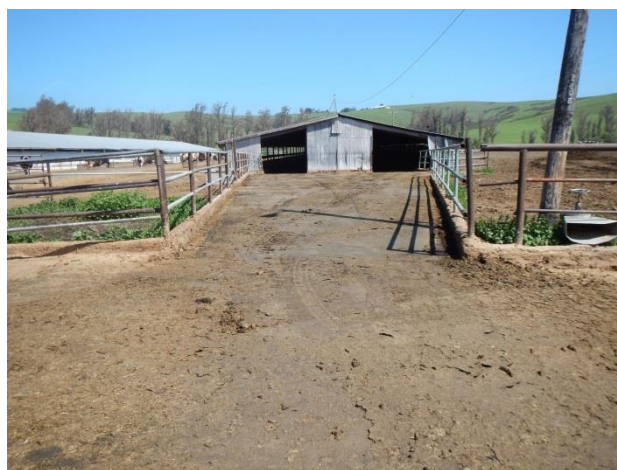
12. Buffer between corral and Estero Americano



13. Concrete floor scraped to Solids Pond. Note roof downspout



14. Concrete ramp for scraping to Solids Pond



15. Freestall Barn with concrete curbs



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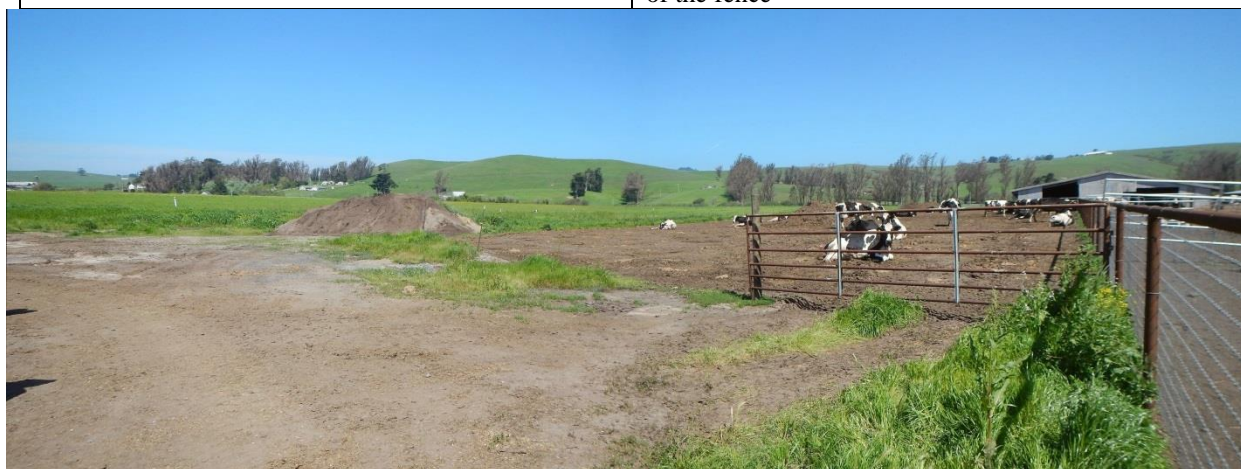
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16. Corral and Freestall Barn



17. Freestall Barn on left. Note vegetation to the right of the fence



18. Corral Southwest of Freestall Barns



19. Garbage and Fuel storage in concrete retaining wall



20. Fuel Storage



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Appendix C. Facility Location and Maps



Figure 1. Satellite photo from Google Earth showing production area and Americano Creek.



Figure 2. Satellite photo from State 2010 Integrated Report map depicting nutrient impairment for Americano Creek, available at:

http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml?wbid=CAR1153001219980709164509.

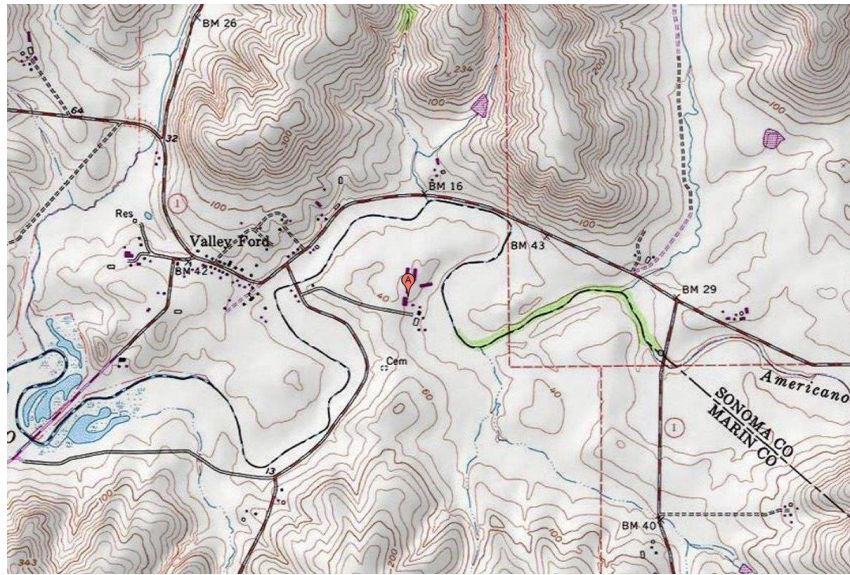


Figure 3. Topographic map of facility.

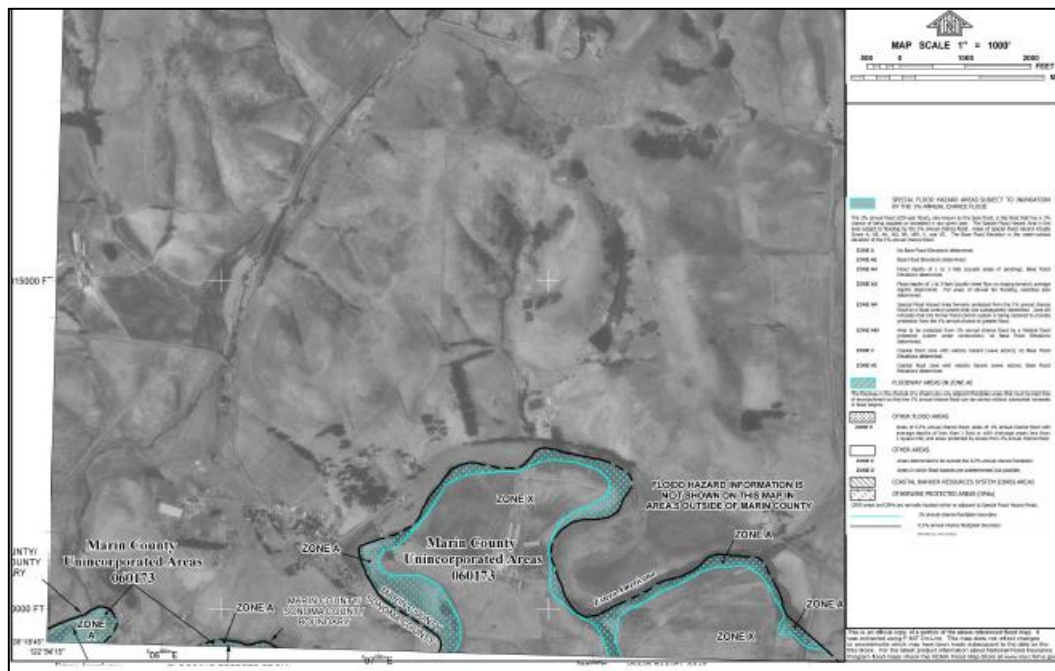


Figure 4. Flood map of facility





Figure 6. Map of the facility's production area.